

MAS8340

Voltage Controlled Oscillator for Very High Frequency Applications

This is preliminary information on a new product under development. Micro Analog Systems Oy reserves the right to make any changes without notice.

Preliminary

- 90 MHz Center Frequency
- Small Size
- Low Phase Noise
- Low Supply Voltage
- Member of MAS IPC VCO Family

DESCRIPTION

MAS8340 is a 90 MHz voltage controlled oscillator. Its small size has been achieved by utilizing the latest developments in Integrated Passive Technology. In addition to this, the selected surface mounted structure minimizes overhead area consumption on a printed circuit board. MAS8340

has been designed to meet most common analog and digital system requirements. It is especially suitable for wireless battery powered systems, which require low phase noise and low power consumption. The module is shielded against electromagnetic interference with a metal lid.

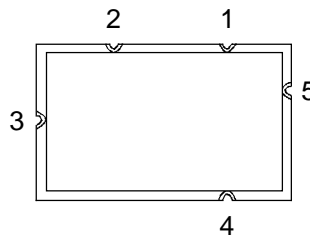
FEATURES

- Low Supply Voltage: 2.8 V
- Low Power Consumption: 8 mA
- Small Size: 6.5 x 9.4 mm
- Low Phase Noise: -114 dBc/Hz

APPLICATIONS

- Mobile Phones
- Cordless Phones
- Portable Receiver / Transmitter Applications

PIN CONFIGURATION



Top View

PIN DESCRIPTION

Pin Name	Pin	Type	Function
VCC	1	P	Positive Power Supply
VCONT	2	I	Frequency Control Input
GND	3	G	Ground
GND	4	G	Ground
OUT	5	O	VCO Output

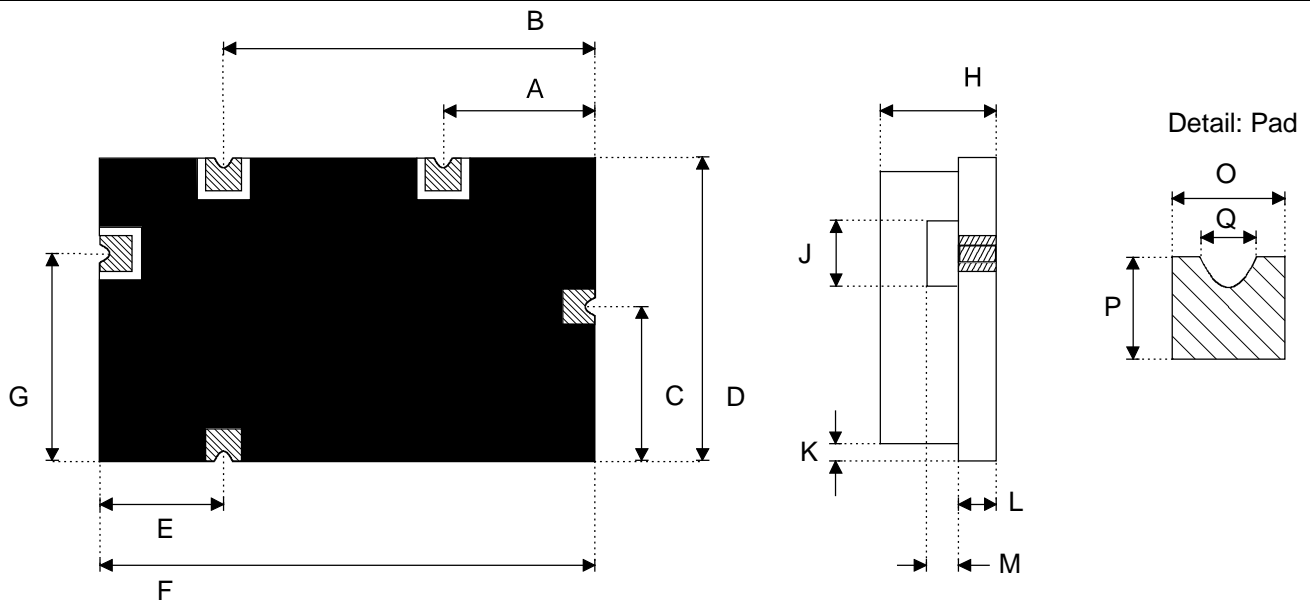
I = Input, O = Output, P = Power, G = Ground

ELECTRICAL CHARACTERISTICS

 For typical values $T_A = 27^\circ\text{C}$, for min/max values $T_A = -35^\circ\text{C}$ to $+85^\circ\text{C}$, unless otherwise noted

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Center Frequency	F_C			90		MHz
Phase Noise	P/N	25 kHz offset from carrier		-114		dBc/Hz
Current Consumption	I_{CC}			8		mA
Supply Voltage	V_{CC}		2.7	2.8	2.9	V
Control Voltage	V_{CONT}		0.5		5	V
Sensitivity of Control Voltage	K_V		1		6	MHz/V
Output Power	P_O	$R_{LOAD} = 50 \text{ Ohms}$		0		dBm
Harmonics				-3		dBc
Frequency Pushing Factor		$V_{CC} = 2.6 \text{ V} \dots 3.2 \text{ V}$			500	kHz/V
Output Impedance	$ Z_O $			50		Ohm

PACKAGE OUTLINES



Dimension	Typical	Unit
A	3.38	mm
B	5.92	mm
C	3.28	mm
D	6.53	mm
E	3.43	mm
F	9.35	mm
G	5.00	mm
H	1.80	mm
J	1.90	mm
K	0.18	mm
L	0.30	mm
M	0.50	mm
O	0.80	mm
P	0.80	mm
Q	0.60	mm

ORDERING INFORMATION

Product Code	Product	Package	Comments
MAS8340AMAA-T	VHF-VCO	Laminate Module	Tape & Reel

LOCAL DISTRIBUTOR

MICRO ANALOG SYSTEMS OY CONTACTS

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